

P. BRUNAVSKIS

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1630 MAIL ROOM

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/445,375A

DATE: 07/19/2000  
TIME: 16:24:22

Input Set : A:\DYOU23SEQ.TXT  
Output Set : N:\CRF3\07192000\I445375A.raw

ENTERED

4 <110> APPLICANT: Kingsman, Susan M.  
5 Bebbington, C.R.  
6 Ellard, Fiona M.  
7 Carroll, Miles W.  
9 <120> TITLE OF INVENTION: VECTOR  
12 <130> FILE REFERENCE: DYU23.001APC  
14 <140> CURRENT APPLICATION NUMBER: 09/445375A  
15 <141> CURRENT FILING DATE: 2000-03-21  
17 <150> PRIOR APPLICATION NUMBER: PCT/GB98/01627  
18 <151> PRIOR FILING DATE: 1998-06-04  
20 <150> PRIOR APPLICATION NUMBER: GB9711579.4  
21 <151> PRIOR FILING DATE: 1997-06-04  
23 <160> NUMBER OF SEQ ID NOS: 24  
25 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
27 <210> SEQ ID NO: 1  
28 <211> LENGTH: 910  
29 <212> TYPE: DNA  
30 <213> ORGANISM: Artificial Sequence  
32 <220> FEATURE:  
33 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv.1.  
35 <221> NAME/KEY: misc\_feature  
36 <222> LOCATION: (1)...(910)  
37 <223> OTHER INFORMATION: n = A,T,C or G  
39 <400> SEQUENCE: 1  
40 gaggtccagc ttcagcagtc tggacctgac ctggtgaagc ctggggcttc vsgdvkgasa 60  
41 gtgaagatat cctgcaaggc ttctgggttac tcattcactg gctactacav ksckasgyst 120  
42 gyytgcactg ggtgaagcag agccatggaa agagccttga gtggattgga cgtmhwvksh 180  
W--> 43 gkswgratta atcctaacia tgggtgttact ctctacaacc agaaattcaa ggacaannng 240  
W--> 44 vtynkkdkgg ccatattaac tgtagacaag tcatccaacca cagcctacat ggagctccat 300  
45 vdksssttaym gcagcctgac atctgaggac tctgcggtct attactgtgc aagatctact 360  
46 rstdsavvy carstatgat tacgaactat gttatggact actggggtca agtaacctca 420  
W--> 47 gtcacmtnyv mdywgvtsvt cgtctcctca ggtggtggtg ggagcgggtg tggcggcact 480  
48 ggcggcgccg vssggggsgg ggtggggatc tagtattgtg atgaccaga ctccacatt 540  
49 cctgcttgtt tcagcagssv mtttvsagga gacagggtta ccataacctg caagccaggt 600  
W--> 50 cagagtgtga gtaatgagdr vttckassvs ndtgtagdtg ggtaccaaca gaagccaggg 660  
51 cagtcctcta cactgetcat atvawykgt cctatacatc cagtcgctac gctggagtcc 720  
52 ctgacgcctt cattggcagt sytssryagv drgsggatat gggacggatt tcactttcac 780  
53 catcagcact ttgcaggctg aagagygtgt tstadctg cagtttattt ctgtcagcaa 840  
W--> 54 gattataatt ctctccgac gttcgavycd ynstgtggag gcaccaagct ggaaatcaaa 900  
55 cggggggtkkrr 910  
57 <210> SEQ ID NO: 2  
58 <211> LENGTH: 2239  
59 <212> TYPE: DNA  
60 <213> ORGANISM: Artificial Sequence  
62 <220> FEATURE:  
63 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv1.  
65 <221> NAME/KEY: misc\_feature

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66 <222> LOCATION: (1)...(2239)
67 <223> OTHER INFORMATION: n = A,T,C or G
69 <400> SEQUENCE: 2
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71 tgctacaggt gtccactccg aggtccagct tcagcagctt ggacctgacc tatgvhsvsq 120
72 dggtgaagcc tggggcttca gtgaagatat cctgcaaggc ttctggttac tvkgasvks 180
73 kasgycattc actggctact acatgcactg ggtgaagcag agccatggaa agagcstggy 240
74 mhwvksghks cttagagtga ttggacgtat taatcctaac aatggtgtta ctctctacaa 300
W--> 75 wgrnnngvty nccagaaatt caaggacaag gccatattaa ctgtagacaa gtcacccacc 360
76 akdkkatvdk sstcagccta catggagctc cgcagcctga catctgagga ctctgcggtc 420
77 tattaymrst sdsavtact gtgcaagatc tactatgatt acgaactatg ttatggacta 480
W--> 78 ctggggycar stmntyvmdy wgtcaagtaa cctcagtcac cgtctctca ggtggtggtg 540
79 ggagcgggtg tgvtstvtss gggsgggcg gcactggcg cgcgcgatct agtattgtga 600
80 tgaccagagc tcccacaggt ggggssvmtt ttctctgctt gtttcagcag gagacaggg 660
81 taccataacc tgcaaggcca gvsagdrvt ckastcagag tgtgagtaat gatgtagctt 720
W--> 82 ggtaccaaca gaagccaggg cagtsvsndv awykgctcct acactgctca taccctatac 780
83 atccagtcgc tacgctggag tcccttsyt ssryagvgat cgcttcattg gcagtgagata 840
84 tgggacggat ttcaacttca ccatcagdr gsygtddtsc actttgcagg ctgaagacct 900
85 ggcagtttat ttctgtcagc aagattatat adavycdyat tctctccga cgttcggtg 960
W--> 86 aggcaccaag ctggaaatca aacggggcns tgggtkkrat ccaccaaggg cccatcggtc 1020
87 tcccccttg caccctcctc caagagcacs tkgsavssks tctctggggg cacagcgcc 1080
88 ctgggctgcc tggtaagga ctacttcccc gsggtaagcv kdyaaccggt gacggtgtcg 1140
W--> 89 tggaaactcag gcgccctgac cagcgcgctg cacvtvswms gatsgvhacc tccccggtg 1200
90 tctacagtc ctcaggactc tactccctca gcagcgttav ssysssavg tgaccgtgcc 1260
W--> 91 ctccagcagc ttgggcaccc agacctacat ctgcaacgvt vsssgttypn tgaatcaca 1320
W--> 92 gcccagcaac accaaggtgg acaagaaagt tgagcccaaa vnhksntkvd kkvtcttgt 1380
93 gacaaaactc acacatgccc accgtgccca gcacctgaac tctscdkth tccagggggg 1440
94 accgtcagtc ttctctctcc ccccaaaacc caaggacacc ctcaggsvkk dttgatctcc 1500
95 cggaccctcg aggtcacatg cgtggtggtg gacgtgagcc acmsrtvtev vvdvshgaa 1560
W--> 96 accctgaggt caagtccaac tggtaacgtg acggcggtga ggtgcadvkn wyvdgvvhta 1620
W--> 97 atgccaagac aaagccgcgg gaggagcagt acaacagcac gtaccgtgna ktkrynstyr 1680
W--> 98 tggtcagcgt cctcaccgtc ctgcaccagg actggtgtaa tggcaaggag vsvtvhdmn 1740
W--> 99 gktacaagtg caaggtctcc aacaaagccc tccagcccc catcgagaaa acykckvsnk 1800
100 aaktcatctc caaagccaaa gggcagcccc gagaaccaca ggtgtacacc ctgcskakgr 1860
W--> 101 vytcccctc cgggatgag ctgaccaaga accaggtcag cctgacctgc ctgsrdtknv 1920
102 stcgtcaaag gcttctatcc cagcgacatc gccgtggagt gggagagcaa tggvkgysda 1980
W--> 103 vwsnggcagc cggagaacaa ctacaagacc acgctctccg tgctggactc cgacgnnykt 2040
104 tvdsdgctcc ttctctctct acagcaagct caccgtggac aagagcaggt ggcaggsysk 2100
W--> 105 tvdksrwcag gggaaactct tctcatgctc cgtgatgcat gaggtcttgc acaaccagnv 2160
W--> 106 scsvmhahnh ctacacgcag aagagcctct ccctgtctcc gggtaaatga gtgcgacggc 2220
107 ytksssgkvr rcaagctts 2239
109 <210> SEQ ID NO: 3
110 <211> LENGTH: 1809
111 <212> TYPE: DNA
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Coding sequence of B7-1.5T4.1
117 <221> NAME/KEY: misc_feature
118 <222> LOCATION: (1)...(1809)

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119 <223> OTHER INFORMATION: n = A,T,C or G
121 <400> SEQUENCE: 3
122 atggggccaca cacggaggca gggaacatca ccatccaagt gtccatacct mghtrrgtss 60
W--> 123 keycaatttc ttccagctct tgggtgctggc tgggtcttct cacttctggt cagnvagshc 120
124 sgtgttatcc acgtgaccaa ggaagtgaag gaagtggcaa cgctgtcctg tgvhvtkvkv 180
W--> 125 atscggtcac aatgtttctg ttgaagagct ggcacaaact cgcatctact ggcaghnvsv 240
126 atrywaaagg agaagaaaaa ggtgctgact atgatgtctg gggacatgaa tataatkkkmv 300
W--> 127 tmmsgdmnng cccgagtaca agaaccggac catctttgat atcactaata acctctccwy 360
W--> 128 knrttdtnnsa ttgtgatcct ggctctgcgc ccatctgacg agggcacata cgagtgtgtv 420
129 arsdgttycvt gttctgaagt atgaaaaaga cgctttcaag cgggaacacc tggctgaagv 480
130 kykdakrhat gacgttatca gtcaaaagctg acttccttac acctagtata tctgactttv 540
131 tsvkadtsdd gaaattccaa cttctaatat tagaaggata atttgcctaa cctctggagg 600
W--> 132 tsnrrestsg gttttccaga gcctcacctc tcctggttgg aaaatggaga agaattaaat 660
W--> 133 ghswngncca tcaacacaac agtttcccaa gatcctgaaa ctgagctcta tgctgttant 720
134 tvsdtiyavag cagcaaaactg gatttcaata tgacaaccaa ccacagcttc atgtgtctss 780
W--> 135 kdnmttnhsm ccatcaagta tggacattta agagtgaatc agaccttcaa ctggaatata 840
W--> 136 akyghrvntn wntccaagca agagcatttt cctgatggag gcgggggacg cgaggtccag 900
137 ctttkhdggg gsvcagcagt ctggacctga cctggtgaag cctggggcct cagtgaagat 960
138 atcsgdvkgc svksctgcaa ggcttctggt tactcattca ctggctacta catgcaactg 1020
139 gtgackasgy stgyymhwva gcagagccat ggaaagagcc ttgagtggat tggacgtatt 1080
W--> 140 aatcctaack shgkswgrnn aatggtgtta ctctctacaa ccagaaattc aaggacaagg 1140
W--> 141 ccatattaac ngvtnkdkk attgtagaca agtcatccac cacagcctac atggagctcc 1200
142 gcagcctgac atvdksttta ymrstctgag gactctgcgg tctattactg tgcaagatct 1260
W--> 143 actatgatta cgaacsdsav yycarstmtn tatgttatgg actactgggg tcaagtaacc 1320
144 tcagtcaccg tctcctcagg yvmdywgvtv vtvsstggtt ggtgggagcg gtggtggcgg 1380
145 cactggcgcc gccggatcta gtattggggs ggggtggggs stgatgacc agactccac 1440
146 attcctgctt gtttcagcag gagacagggt tvmtttvsag drvaccataa cctgcaaggc 1500
W--> 147 cagtcagagt gtgagtaatg atgtagcttg gtattckass vsndvawycc aacagaagcc 1560
148 agggcagctc cctacactgc tcatatccta tacatccakg stsytsgtcg ctacgctgga 1620
149 gtccctgacg gtttcattgg cagtggatat gggacgsrya gvdrgsgygt gatttcaact 1680
150 tcaccatcag cactttgcag gctgaagacc tggcagttta dttstadavy tttctgtcag 1740
W--> 151 caagattata attctcctcc gacgttcggt ggaggcacca cdynstgggt agctggaaat 1800
152 caaataakk 1809
154 <210> SEQ ID NO: 4
155 <211> LENGTH: 887
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Human B7-2 sequence followed by a linker.
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (1)...(887)
164 <223> OTHER INFORMATION: n = A,T,C or G
166 <400> SEQUENCE: 4
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W--> 168 tgctcctctg aagattcaag cttatttcaa tgagactgca gacctgcat akayntadgc 120
W--> 169 caatttgcaa actctcaaaa ccaaagcctg agtgagctag tagtatttca nsnssvvtgg 180
W--> 170 caggaccagg aaaacttggt tctgaatgag gtatacttag gcaaagawdn vnyvgkga 240
171 ttgacagtg ttcatccaa gtatatgggc gcacacaagt ttgattkds hskymgrtsd 300
W--> 172 cggacagttg gacctgaga cttcacatc ttcagatcaa ggacaagggc sdswrhnhkd 360

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RAW SEQUENCE LISTING  
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Input Set : A:\DYOU23SEQ.TXT  
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173 kgttgtatca atgtatcatc catcacaaaa agccacacagg aatgattcgc atychhkktg 420
W--> 174 mrcaccagga tgaattctga actgtcagtg cttgctaact tcagtcaacc tghmnssvan 480
W--> 175 saaatagtag caatttctaa tataacagaa aatgtgtaca taaatttgac cvsntnvnt 540
176 tgctcatcta tacacggtta cccagaacct aagaagatga gtgttttgct csshgykms 600
W--> 177 vaagaaccaa gaattcaact atcgagtatg atggtattat gcagaaatct crtknstydg 660
W--> 178 mksaagataa tgtcacagaa ctgtacgacg ttcccatcag cttgtctggt tcadnvydv 720
W--> 179 sssvsttccc tgaagttagc agcaatatga ccatctctg tattctggaa actgadvtstn 780
180 mtctdcaaga cgcggctttt atcttcacct ttctctatag agcttgagga ccctcktrss 840
181 sdagcctccc ccagaccaca ttcttgaggg cgggggatcc dhggggs 887
183 <210> SEQ ID NO: 5
184 <211> LENGTH: 1518
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: pBSII/Leader/scFv/HG1.
191 <400> SEQUENCE: 5
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193 ctcatctctc tctttgtgct gctgattcgt ctttcacaag tgtcttcaga tgttgatgaa 120
194 caactgtcca agtcagtgaa agataaggta ttgctgcctt gccgttacaa ctctccgcat 180
195 gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
196 attgctggga aactaaaagt gtggcccgag tataagaacc ggactttata tgacaacact 300
197 acctactctc ttatcatcct gggcctggtc ctttcagacc ggggcacata cagctgtgtc 360
198 gttcaaaaaga aggaagaggg aacgtatgaa gttaaacact tggctttagt aaagtgtgcc 420
199 atcaaaagctg acttctctac ccccaacata actgagctcg gaaacccatc tgcagacact 480
200 aaaaaggatta cctgctttgc ttccgggggt ttcccaaagc ctgccttctc ttggttgaa 540
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202 tacaccatta gttagccaact agatttcaat acgactcgca accacacat taagtgtctc 660
203 attaaatatg gagatgtcca cgtgtcagag gacttcacct gggaaaaacc ccagaagac 720
204 cctctgata gcaagcccg gggtggtggg agcgggtggg gcggcagtg ggccggcgga 780
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207 cagagccatg gaaagagcct tgagtggatt ggacgtatta atcctaaca tgggtgtact 960
208 ctctacaacc agaaattcaa ggacaaggcc atattaactg tagacaagtc atccaccaca 1020
209 gcctacatgg agctcccgag cctgacatct gaggaactct cggtctatta ctgtgcaaga 1080
210 tctactatga ttacgaacta tgttatggac tactggggtc aagtaacttc agtcaccgtc 1140
211 tcttcaggtg gtgggtggag cgggtggggc ggcaactggc gcggcggtac tagtattgtg 1200
212 atgacccaga ctcccacatt cctgcttgtt tcagcaggag acagggttac cataacctgc 1260
213 aaggccagtc agagtgtgag taatgatgta gcttggtacc aacagaagcc agggcagctc 1320
214 cctacactgc tcatatccta tacatccagt cgtacgctg gagtccctga tcgcttcatt 1380
215 ggcagtgat atgggacgga tttaacttcc accatcagca ctttgcaggc tgaagacctg 1440
216 gcagtttatt tctgtcagca agattataat tctctccga cgttcgggtg aggcaccaag 1500
217 ctggaatca aacggtaa 1518
219 <210> SEQ ID NO: 6
220 <211> LENGTH: 2090
221 <212> TYPE: DNA
222 <213> ORGANISM: Artificial Sequence
224 <220> FEATURE:
225 <223> OTHER INFORMATION: 5T4 scFv-human IgE fusion construct.
227 <400> SEQUENCE: 6

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RAW SEQUENCE LISTING                      DATE: 07/19/2000  
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228 ctcgagccac catgggtagg agctgtatca tcctcttctt ggtagcaaca gctacagggtg 60
229 tccactccga ggtccagctg cagcagctctg gacctgacct ggtgaagcct ggggcttcag 120
230 tgaagatata ctgcaaggct tctgggttact cattcactgg ctactacatg cactgggtga 180
231 agcagagcca tggaaagagc cttgagtgga ttggacgtat taatcctaac aatgggtgta 240
232 ctctctacaa ccagaaattc aaggacaagg ccatattaac tgtagacaag tcattccacca 300
233 cagcctacat ggagctccgc agcctgacat ctgaggactc tgcggtctat tactgtgcaa 360
234 gatctactat gattacgaac tatgttatgg actactgggg tcaagtaact tcagtccaccg 420
235 tctcttcagg tgggtggggg agcgggtggg gcggcactgg cggcggcgga tctagtattg 480
236 tgatgaccca gactcccaca ttctgtcttg ttccagcagg agacagggtt accataacct 540
237 gcaaggccag tcagagtgtg agtaaatgat tagcttggtg ccaacagaag ccaggggcagt 600
238 ctccctacat gctcatatcc tatacatcca gtcgctacgc tggagtcctt gatcgcttca 660
239 ttggcagtggt atatgggacg gatttcactt tcaccatcag cactttgcag gctgaagacc 720
240 tggcagttta ttctgtcag caagattata attctctccc gacgttcggt ggaggcacca 780
241 agcttgaaat caaacgggccc tccacacaga gcccatccgt ctcccccttg acccgtgct 840
242 gcaaaaacat tccttccaat gccacctccg tgactctggg ctgctgggcc acgggctact 900
243 tccccggagcc ggtgatgggt accctgggaca caggctccct caacgggaca actatgacct 960
244 taccagccac caccctcacg ctctctggtc actatgccac catcagcttg ctgacctgt 1020
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246 actgggtcga caacaaaacc ttccagctgt gctccaggga cttcaccccg cccaccgtga 1140
247 agatcttaca ctgctctcgc gacggcgggc ggcacttccc cccgacctac cagctcctgt 1200
248 gcctcgtctc tgggtacacc ccagggaacta tcaacatcac ctggctggag gacgggcagg 1260
249 tcatggacgt ggaactgttc accgcctcta ccacgcagga ggggtgagct gctccacac 1320
250 aaagcgagct caccctcagc cagaagcact ggctgtcaga ccgacacct accctgccag 1380
251 tcacctatca aggtcacacc tttaggaga gcaccaagaa gtgtgcagat tccaaccga 1440
252 gaggggtgag cgctaccta agccggccca gcccggttga cctgttcac cgcaagtcgc 1500
253 ccacgatcac ctgtctgggt gtggacctgg caccagcaa ggggacctg aaactgacct 1560
254 ggtcccgggc cagtgggaag cctgtgaacc actccaccag aaaggaggag aagcagcgca 1620
255 atggcacgtt aaccgtcacg tccacctgc cggtgggcac ccgagactg atcgaggggg 1680
256 agacctacca gtgcagggtg acccaccccc acctgccag ggccctcatg cgttccacga 1740
257 ccaagaccag cggcccgctg gctgccccgg aagtctatgc gtttgcagc ccggagtggc 1800
258 cggggagccg ggacaagcgc accctgcctt gcctgatcca gaacttcag cctgaggaca 1860
259 tctcggtgca gtggctgcac aacgaggtgc agctcccgga cgcgggcac agcacgacgc 1920
260 agccccgcaa gaccaagggc tccggcttct tegtcttcag ccgctggag gtgaccagg 1980
261 ccgaatggga gcagaaagat gagtctatct gccgtgcagt ccatgaggca gcgagcccct 2040
262 cacagaccgt ccagcgagcg gtgtctgtaa atcccggtaa atgagagctc 2090
264 <210> SEQ ID NO: 7
265 <211> LENGTH: 945
266 <212> TYPE: DNA
267 <213> ORGANISM: Artificial Sequence
269 <220> FEATURE:
270 <223> OTHER INFORMATION: B7-EGF fusion construct.
272 <400> SEQUENCE: 7
273 atggcttgca attgtcagtt gatgcaggat acaccactcc tcaagtttcc atgtccaagg 60
274 ctcatctctc tctttgtgct gctgattcgt ctttcacaag tgtcttcaga tgttgatgaa 120
275 caactgtcca agtcagtgaa agataaggta ttgtgcctt gccgttacaa ctctccgcac 180
276 gaagatgagt ctgaagaccg aatctactgg caaaaacatg acaaagtggg gctgtctgtc 240
277 attgtctggg aactaaaagt gtggcccgag tataagaacc ggactttata tgacaacact 300
278 acctactctc ttatcatcct gggcctggtc ctttcagacc ggggcacata cagctgtgtc 360
279 gttcaaaaga aggaaagagg aacgtatgaa gttaaacact tggctttagt aaagtgtgcc 420

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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/445,375A

DATE: 07/19/2000

TIME: 16:24:23

Input Set : A:\DYOU23SEQ.TXT

Output Set: N:\CRF3\07192000\I445375A.raw

L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:44 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:78 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2  
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:125 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3  
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4